

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1. (Currently Amended): An optical element comprising:
a polarizing element (A), separating incident light into polarization to then emit light, and made of a cholesteric liquid crystal, and
a linearly polarized light reflection polarizer (B) transmitting linearly polarized light with one polarization axis and selectively reflecting linearly polarized light with the other polarization axis perpendicular to the one polarization axis, wherein
the polarizing element (A) and the linearly polarized light reflection polarizer (B) are laminated in the optical element; and
the polarizing element (A) has a distortion rate with respect to emitting light to incident light in the normal direction of 0.5 or more and
a distortion rate with respect to emitting light to incident light at an angle inclined from the normal direction by 60 degrees or more of 0.2 or less, and
wherein a reflection band width of the polarizing element (A) is 200 nm or more, and
a twist pitch length of a cholesteric liquid crystal in the polarizing element (A) varies along the thickness direction;
wherein the polarizing element (A) is capable of increasing a linearly polarized light component of emitting light as incidence angle increases, and
wherein a polarization axis of the linearly polarized light of emitting light is substantially perpendicular or substantially parallel to the normal direction of a surface of the polarizing element.

2. (Previously Presented): The optical element according to claim 1, wherein, in the polarizing element (A), the linearly polarized light component of emitting light increasing as

incidence angle increases has a polarization axis of linearly polarized light substantially perpendicular to the normal direction of a surface of the polarizing element.

3. (Previously Presented): The optical element according to claim 1, wherein, in the polarizing element (A), the linearly polarized light component of emitting light increasing as incidence angle increases has a polarization axis of linearly polarized light substantially parallel to the normal direction of a surface of the polarizing element.

4. (Previously Presented): The optical element according to claim 1, wherein the polarizing element (A) substantially reflects a non-transmission component of incident light.

5. (Previously Presented): The optical element according to claim 1, wherein a thickness of the polarizing element (A) is 2 μm or more.

6. (Cancelled)

7. (Previously Presented): The optical element according to claim 1, wherein the linearly polarized light reflection polarizer (B) is a grid type polarizer.

8. (Previously Presented): The optical element according to claim 1, wherein the linearly polarized light reflection polarizer (B) is a multilayer thin film laminate with two or more layers made of two or more kinds of materials having a difference between refractive indices.

9. (Original): The optical element according to claim 8, wherein the thin multilayer laminate is a vapor-deposited thin film.

10. (Previously Presented): The optical element according to claim 1, wherein the linearly polarized light reflection polarizer (B) is a multi-birefringence layer thin film laminate with two or more layers made of two or more kinds of materials each having a birefringence.

11. (Original): The optical element according to claim 10, wherein the thin multilayer laminate is a stretched resin laminate with two or more layers containing two or more kinds of resins each having a birefringence.

12. (Previously Presented): An optical element comprising a $1/2$ wavelength plate (C) sandwiched between the polarizing element (A) and the linearly polarized light reflection polarizer (B) in the optical element according to claim 1.

13. (Original): The optical element according to claim 12, wherein the $1/2$ wavelength plate (C) is a broad band wavelength plate working as an almost $1/2$ wavelength plate over the entire visible light band.

14. (Original): The optical element according to claim 13, wherein the $1/2$ wavelength plate (C) has a front retardation values, which is expressed by $(n_x - n_y) \times d$, in the range of a $1/2$ wavelength $\pm 10\%$ at wavelengths in the light source wavelength band (ranging from 420 to 650 nm),

where a direction in which an in-plane refractive index is maximized is defined as X axis and a direction perpendicular to the X axis is defined as Y axis, where refractive indices in each axis directions are defined as n_x and n_y , respectively, and a thickness is defined as d (nm).

15. (Previously Presented): The optical element according to claim 12, wherein the $1/2$ wavelength plate (C) controls a retardation in the thickness direction and reduces a change in retardation caused by a change in angle.

16. (Original): The optical element according to claim 15, wherein the $1/2$ wavelength plate (C) has an N_z coefficient, which is expressed by $N_z = (n_x - n_z)/(n_x - n_y)$, in a relation of $-2.5 < N_z \leq 1$,

where a direction in which an in-plane refractive index is maximized is defined as X axis, a direction perpendicular to the X axis is defined as Y axis and a thickness direction of the film is defined as Z axis, where refractive indices in each axis directions are defined as n_x , n_y and n_z .

17. (Previously Presented): The optical element according to claim 1, wherein a polarizing plate is disposed outside of the linearly polarized light reflection polarizer (B) so that the polarized light transmission axis of the linearly polarized light reflection polarizer (B) and the polarization axis direction of the polarizing plate coincide with each other.

18. (Previously Presented): The optical element according to claim 1, wherein layers are laminated with a transparent adhesive or pressure sensitive adhesive.

19. (Previously Presented): A light condensation backlight system, in which at least a light source is provided for the optical element according to claim 1.

20. (Currently Amended): The light condensation backlight system according to claim 19, comprising a primary light ~~condensing~~ condensor wherein ~~the condensing a condensed~~ light is in the angular range of ± 60 degrees from the normal direction.

21. (Currently Amended): The light condensation backlight system according to claim 20, wherein the primary light ~~condensing~~ condensor is a microprism sheet array disposed on the light source.

22. (Canceled)

23. (Canceled)

24. (Previously Presented): A light condensation backlight system, in which at least a light source is provided for the optical element according to claim 12.

25. (Currently Amended): The light condensation backlight system according to claim 24, comprising a primary light ~~condensing~~ condensor wherein in ~~condensing~~ condensed light is in the angular range of ± 60 degrees from the normal direction.

26. (Currently Amended): The light condensation backlight system according to claim 25, wherein the primary light ~~condensing~~ condensor is a micropism sheet array disposed on the light source.

27. (Previously Presented): A light condensation backlight system, in which at least a light source is provided for the optical element according to claim 17.

28. (Currently Amended): The light condensation backlight system according to claim 27, comprising a primary light ~~condensing~~ condensor wherein in ~~condensing~~ condensed light is in the angular range of ± 60 degrees from the normal direction.

29. (Currently Amended): The light condensation backlight system according to claim 28, wherein the primary light ~~condensing~~ condensor is a micropism sheet array disposed on the light source.

30. (Previously Presented): A liquid crystal display, in which at least a liquid crystal cell is provided for the light condensation backlight system according to claim 28.

31. (Previously Presented): The liquid crystal display according to claim 30, comprising a diffusing plate neither backscattering nor depolarizing laminated on the viewing side of the liquid crystal cell.

32. (New): The optical element according to claim 1, wherein the laminated optical element has more than one cholesteric liquid crystal layer wherein each has a central wavelength that is different from each other.

33. (New): The optical element according to claim 1, wherein the twist pitch length continuously alters in the thickness length.